



UNMC School of Biosciences Research Bulletin 2018 Vol 2 Issue 1

Introduction

Since this is the first issue of SoB research bulletin for 2018, I would like to present to you a summary of our research publications for 2017. As you can see in the Table on page 2, together we have had a total of 34 publications with an average of 1.88 publications per staff for the year 2017. This is quite a good output considering all of us were heavily bogged down with teaching and administrative tasks.

In the world of research, there is this cruel saying that goes “Published or be perished”. So, if you happened to be one of those who felt down due to low publication, do not be despair. There are still 8 months ahead for you to get prepare for your next paper publication. Our mentor-mentee scheme is already up and running. Do talk to your mentor to get tips and guidance to improve your chances of publications.

We have had a vibrant start in research in our school this year with Ian paying a visit to our campus, which is reported on page 5. There were several ideas or projects sprouted from the visit. Hopefully, we shall read some of the success stories in our next bulletin.

In this issue, I would like to highlight our next generation researcher from our School, Ms Tham Shiau Ying, who is supervised by Sandy (see Page 6). The many achievements made by Shiau Ying within such a short span of time, and I am sure there are many more out there yet to be reported, is an indication that we are heading towards the right direction in our research journey.

Together let’s make 2018 a research successful year for all of us.

Yours sincerely,

Chiew Foan

Chin Chiew Foan
Director of Research Committee in School of Biosciences
On behalf of SoB research committee



Publications in the School of Biosciences (Jan-Dec 2017)

SCHOOL OF BIOSCIENCES			Number of Publications in 2017 (Jan - March)	Number of Publications in 2017 (Apr - June)	Number of Publications in 2017 (Jul - Sept)	Number of Publications in 2017 (Oct - Dec)
No	Name	Designation				
1	Prof Festo Massawe	Head of Sch	2	-	-	5
2	Dr Chin Chiew Foan	Assoc professor	1	1	-	-
3	Prof Sandy Loh Hwei San	Professor	5	1	2	-
4	Dr Christina Supramaniam	Asst. Professor	-	-	1	-
6	Prof Asgar Ali Warsi	Professor	-	-	2	1
7	Dr Winnie Yap Soo Ping	Assoc. Professor	-	1	-	1
8	Dr Lim Yin Sze	Asst. Professor	-	1	-	-
9	Dr Suzan Azam Ali	Asst. Professor	-	-	-	-
10	Dr Ajit Singh	Assoc. Professor	-	1	-	1
11	Dr Soma Mitra	Assoc. Professor	1	1	-	-
12	Dr Cheng Shi Hui	Asst. Professor	-	-	-	-
13	Dr Eunice Ngai	Asst. Professor	-	-	-	1
14	Dr Ho Wai Kuan	Post Doc	1	1	-	-
15	Dr Chai Hui Hui	Teaching Fellow	1	-	-	-
16	Dr Le Cheng Foh	Asst. Professor	-	-	-	1
17	Dr Ng Zhi Xiang	Asst. Professor	-	-	1	-
18	Dr Nabin Rayamajhi	Assoc. Professor	-	-	-	-
Total = 34			11	7	6	10



January – March 2018...

Publications in School of Biosciences:

1. Sonia How Ming Wong, Chee Mun Fang, Lay-Hong Chuah, Chee Onn Leong, Siew Ching Ngai. 2018. E-cadherin: Its dysregulation in carcinogenesis and clinical implications. *Critical Reviews in Oncology/Hematology* 121: 11-22
2. Abubakar, I.B., Lim, K.-H., Kam, T.-S., Loh, Hwei-San (2018). Jerantinine B enhances the mitochondria-mediated apoptosis by p53 activation in human glioblastoma cells via a combination with δ -tocotrienol. *Journal of Biologically Active Products from Nature* 8(1): 21-27. DOI: 10.1080/22311866.2018.1440253.
3. Siew, Q.Y., Tham, S.Y., Loh, Hwei-San, Khiew, P.S., Chiu, W.S., Tan, Michelle (2018). One-step green hydrothermal synthesis of biocompatible graphene/TiO₂ nanocomposites for enzymeless H₂O₂ detection and its cytotoxicity effects on human keratinocytes and lung fibroblasts cells. *Journal of Materials Chemistry B* 6: 1195-1206. DOI:10.1039/C7TB02891A.
4. Leong, Y.K., Chang, C.-K., Arumugasamy, S.K., Lan, J.C.-W., Loh, Hwei-San, Muhammad, D., Show, P.L. (2018). Statistical design of experimental and bootstrap neural network modelling approach for thermoseparating aqueous two-phase extraction of polyhydroxyalkanoates. *Polymers* 10: 132. DOI:10.3390/polym10020132 (ISSN 2073-4360).
5. N. F. A. Razak, C. V. Supramaniam, A. Zieritz (2018) A dichotomous PCR–RFLP identification key for the freshwater mussels (Bivalvia: Unionida) of Peninsular Malaysia Conservation Genetics Resources <https://doi.org/10.1007/s12686-018-1038-8>
6. Siou Ting Gan, Wei Chee Wong, Choo Kien Wong, Aik Chin Soh, Andrzej Kilian, Eng-Ti Leslie Low, Festo Massawe and Sean Mayes (2018) High density SNP and DArT-based genetic linkage maps of two closely related oil palm populations. *Journal of Applied Genetics*, 59: 23–34. <https://doi.org/10.1007/s13353-017-0420-7>
7. S Sudheer, Z Taha, S Manickam, A Ali, P Guat (2018) Development of antler-type fruiting bodies of *Ganoderma lucidum* and determination of its biochemical properties. *Fungal Biology* <https://doi.org/10.1016/j.funbio.2018.01.007>
8. MA Mustafa, A Ali, G Seymour, G Tucker (2018) Delayed pericarp hardening of cold stored mangosteen (*Garcinia mangostana* L.) upon pre-treatment with the stress hormones methyl jasmonate and salicylic acid. *Scientia Horticulturae* 230:107–116 <https://doi.org/10.1016/j.scienta.2017.11.017>
9. M Mustafa, A Ali, G Seymour, G Tucker (2018) Treatment of dragonfruit (*Hylocereus polyrhizus*) with salicylic acid and methyl jasmonate improves postharvest physico-chemical properties and antioxidant activity during cold storage. *Scientia Horticulturae* 231 (2018) 89–96 <https://doi.org/10.1016/j.scienta.2017.09.041>
10. S Sudheer, I Alzorqi, A Ali, CP Guat, Y Siddiqui, S Manickam (2018) Determination of the Biological Efficiency and Antioxidant Potential of Lingzhi or Reishi Medicinal Mushroom, *Ganoderma lucidum* (Agaricomycetes), Cultivated Using Different Agro-Wastes in Malaysia. *International Journal of Medicinal Mushrooms* 20(1): 89-100 <http://www.dl.begellhouse.com/journals/708ae68d64b17c52,058bdb3d1a5aef61,55c86edc6d43caed.html>



Book Chapter:

1. Sudheer S., Alzorqi I., Manickam S., Ali A. (2018) Bioactive Compounds of the Wonder Medicinal Mushroom “*Ganoderma lucidum*”. In: Mérillon JM., Ramawat K. (eds) Bioactive Molecules in Food. Reference Series in Phytochemistry. Springer, Cham

https://link.springer.com/referenceworkentry/10.1007%2F978-3-319-54528-8_45-1

Conference:

1. Tham, Shiau-Ying; Mai, Chun-Wai; Fu, Ju-Yen; Loh, Sandy Hwei-San (2018). Cell death enhancement and chemosensitisation effect of 5-fluorouracil in colorectal cancer cells via the combination with delta-tocotrienol. In: A Matter of Life or Death 2018. 1st – 3rd February 2018. Amsterdam, Netherlands.
2. Chiew Foan Chin (2018) Omic technologies for investigating the fruit ripening process of tropical mango *Mangifera indica*. Plant Genomic and Gene Editing Congress: Asia, 26th-27th March 2018, Bangkok, Thailand.

Grants/ studentship awards:

1. Ms Shiau-Ying Tham (Supervisor – Prof Sandy Loh) won the prestigious European Association for Cancer Research EACR-Worldwide Cancer Research Meeting Bursary Award to attend the international conference, A Matter of Life or Death 2018 which was held on 1st – 3rd February 2018 in Amsterdam, Netherlands.

Staff News

1. Dr Eunice Siew Ching Ngai is appointed as the University Representative of Malaysian Society for Biochemistry and Molecular Biology (MSBMB) from 1st April 2018 until 31st August 2019
2. Prof. Sandy Loh was invited as an External Examiner for the evaluation of an MSc thesis from Universiti Putra Malaysia and she had completed the examination process
3. Dr Chin Chiew Foan has been invited to be a judge at the 29th International Invention, Innovation & Technology Exhibition (ITEX 2018) to be held from 10-12 May, 2018 at the Kuala Lumpur Convention Center



Report on the visit by the Director of Research, Prof Ian Fisk from UNUK

On the 24th January 2018, the School of Biosciences at UNMC hosted a visit for Prof Ian Fisk who is the Director of Research from the SB campus in UNUK. Ian was here for 3 days and during the 3 days, we have had several useful exchange sessions. One of the sessions was on sharing on industrial engagement as Ian has had many previous successes in garnered industrial grants to carry out research. The session also managed to have Prof Denny Ng, who is the Director of UNMC Business Engagement & Innovation Services (BEIS) center to share his experiences on the Malaysia industrial linkage and grant availability. The session enable us to have an insight into industrial grant availability and useful tips on building linkages with the industrial partners to do research.



The academic staff in the School of Biosciences also have had a close session with Ian to discuss about various research expertise in our school and how to establish linkages with the research experts in the UK campus. The School of Biosciences Research committee together with some of the management staff such as Nash (Associate Dean for Research) and Festo (former Head of School of Biosciences) and Ian were also met up with Aaron Kual, the Science and Innovation officer from the British High Commission in Malaysia to discuss about possible grant availability and dissemination of information.

On his third day here, Ian, Yin Sze and myself have visited food related departments in MPOB and UPM. Both organisations have expressed great interest in working with us in terms of grant proposal, usage of facilities and supervision of students.

Ian's visit to the Malaysia campus has been very useful and we hope that it could lay a strong foundation for us to foster a closer relationships between the UK campus with UNMC and the research communities in this regions.



by Chiew Foan



A shining star from the eyes of a supervisor

I am really proud to be the chief supervisor of the shining star, Ms Shiau-Ying Tham, a PhD student under School of Biosciences. Herein, I am delightfully writing to share her remarkable achievements to you.

Granted as the scholar of MyPhD from Malaysian Ministry of Higher Education, Shiau Ying had kick-started her PhD study in April 2015 under my supervision. Shiau Ying is an excellent and diligent PhD student, where she has been showing great determination and enthusiasm towards her research. Other than the technical knowledge and research techniques she acquired from the supervisors and PGR seniors, the postgraduate trainings arranged by the Graduate School have promoted transferable skills development in her, which include self-competency, leadership, management and communication skills. As a result, she won numerous commendable awards on both oral and poster presentations in conferences and research showcase as well as international travel funds. Besides, she had also gone through a highly competitive process in successfully securing a research grant from Toray Science Foundation, Japan to support the molecular mechanistic studies of her PhD project. This was a great honour which recognised her communication skills, self-confidence, intellectual wisdom and importance of her PhD project to Science. Her achievement details are well-listed in Table 1.

Undoubtedly, Shiau Ying has been striving very well throughout her PhD journey at UNMC, inside and outside the country. For instance, she was invited as one of the panellists in the forum upon the Ada Lovelace Day celebration in October 2017 to share her PhD study experience. During the forum, she mentioned that her inspirational role model is the amazing late female scientist, Dr Rosalind Franklin who worked on X-ray diffraction images of DNA which had changed the world in revealing the DNA structure. In fact, she was described as a PGR role model with charms in inspiring the others especially females in the Science discipline. I do hope that more young females with a passion for Science are encouraged to follow their dreams and think of a career in this area – from my sincere heart as the Chair, Gender Equality in Nottingham (GEN).

**“Science and everyday life cannot and should not be separated” —
Rosalind Franklin.**

Lastly, I wish Shiau Ying to continue shining – Your diligence, hard work, integrity and perseverance will make you taste the fruits of success as usual. All the best!

Table 1: List of awards received by Ms Shiau Ying Tham during her PhD period.

Date	Award Details
May 2018	University Postgraduate Award Prize 2017/18 [Winner]
Jan 2018	European Association for Cancer Research, EACR-Worldwide Cancer Research Meeting Bursary Award [Winner]
Sep 2017	FoS PGR Student Conference Support Poster Competition [Second Prize]
Apr 2017	UNMC Research Showcase [Best Poster Award & Overall Winner Award]
Dec 2016	Malaysia Toray Science Foundation (MTSF) Science and Technology Research Grant [Principle Investigator]
Jun 2016	Cancer Research Priority Area (RPA) [Cross-Campus Travel Fund]
Apr 2016	International Conference of Translational Molecular Imaging & Aerospace Medicine & Physiology Showcase (iCT-MIPs 16) [Most Recommended Paper for Oral Presentation Award]



Left: Shiau Ying received the Toray award from Mr. Suhaimi bin Hamzah, Senior Under-Secretary, who represented the Minister of Science, Technology & Innovation (MOSTI).



Left: EACR-Worldwide Cancer Research Meeting Bursary Award winners (© EACR 2018). Right: Ms Shiau-Ying Tham presented a poster in the “A Matter of Life or Death 2018” conference.

Written by Prof. Dr. Sandy Loh